

Theme

Connectors

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All prices are excl. of VAT. We issue a reservation against any erroneous product descriptions, prices and other incorrect data that may occur according to IML 2000 point 2, see ELFA catalogue 56.

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ELFA

Series SWF Coaxial connector

Mfr. Murata

Miniature connectors with switch function. The series allows easy measuring during construction and production. As soon as the probe is attached, the through signal is disengaged from the connector and the signal in the microwave area can thereafter be analysed. Usage include civil and military wireless communication, WLAN and mobile telephony.

MM8130-2600 Socket for PCB mounting

MXHS83QE3000 Cable assembly with 0.8mm cable fitted with angled SWF plug at one end and SMA socket at the other end.

MM126036 and MM126037 Test probe with SWF plug and SMA socket.

The MM126036 has fixed mechanism and is used when the surrounding test jig is mobile.

The MM126037 has a floating mechanism and is used when the surrounding test jig is not mobile.

M1KMM8130-SWF01 Prototype kit containing 1 pcs cable MXHS83QE3000, 1pcs PCB with 1pcs socket MM8130-2600 and 25 pcs loose sockets MM8130-2600

muRata



Frequency range:	0-6 GHz	Type	Description	Stock no.	Price/each
Impedance:	50 Ω	MM8130-2600	Socket SWF, surface mounted	46-152-00	0,45
Rated voltage:	250 V	MXHS83QE3000	Cable SWF male-SMA female	46-152-02	28,90
Insulation resistance:	500 MΩ	MM126036	Probe SWF male-SMA female	46-152-04	59,10
VSWR:	max 1.3	MM126037	Probe SWF male-SMA female	46-152-05	73,40
		M1KMM8130-SWF01	Prototype kit series SWF	46-152-06	41,30

GRM-HICAPKIT Lab kit

Mfr. Murata

Lab kit/service pack with ceramic capacitors. 54 types in various sizes, dielectrics and voltages for surface mounting. 20 pcs of each, 1080 in total.



Type	Stock no.	Price/set
GRM-HICAPKIT	65-500-08	138,00

EMIFIL NFM/NFE_P- series Lab kit

Mfr. Murata

Lab kit with interference filter for surface mounting. Type NFM and NFE by manufacturer Murata. NFM18, NFM21, NFM41, NFE31, NFE61. 21 different values. 10 of each value, 210 pcs in total.



Type	Stock no.	Price/set
EKEMNFMFG	65-617-99	55,10

LQW18A/0603 Lab kit chip-coils

Mfr. Murata

Lab kit with chip-coils for surface mounting. Size 0603 3.6-470nH of type LQW18A. Manufacturer: Murata. 10 of each value, 510 pcs in total.



Type	Stock no.	Price/set
EKLQM18GB	58-701-18	61,90

DLW/DLP- series Lab kit

Mfr. Murata

Lab kit with wire-wound EMI filter for surface mounting. Designed for purpose of interference suppression. Type DLW and DLP by manufacturer Murata. 33 different types. 10 of each value, 330 pcs in total.



Type	Stock no.	Price/set
EKEMDL21F	65-618-07	111,00

BLM18/31/41 series Lab kit

Mfr. Murata

Lab kit with ferrite coils for surface mounting. Designed for purpose of interference suppression. BLM18 size 0603, BLM31 size 1206, BLM41 size 1806 by manufacturer Murata. 59 different types. 10 of each value, 590 pcs in total.



Type	Stock no.	Price/set
EKEMBL18F	65-618-23	57,80

GQM-HIQ0603KIT-E Lab kit

Mfr. Murata

Lab kit/service pack with ceramic capacitors for surface mounting. 40 types in size 0603, CoG dielectric, voltage 50 and 100V. 20 of each value, 800 pcs in total.



Type	Stock no.	Price/set
GQM18-HIQ0603KIT	65-401-40	152,00

IRS-A200

Mfr. Murata

Pyroelectric infrared sensor. Pyroelectric infrared sensor for surface mounting. Fresnel lens for sensor sold separately.



Type	Stock no.	Price/each		
		1-	10-	100-
IRS-A200ST01-R1	73-214-35	2,37	2,04	1,62

Fresnel lens for IRS-A200

Mfr. Murata

Fresnel lens for direct mounting on IR-sensor IRS-A200.



Type	Stock no.	Price/each		
		1-	10-	100-
IML-0658	73-214-38	2,24	1,92	1,54

Fresnel lens for IRS-A200

Mfr. Murata

Fresnel lens which is directly mounted on IR-sensor IRS-A200.



Type	Stock no.	Price/each		
		1-	10-	100-
IML-0642	73-214-36	2,37	2,04	1,62
IML-0643	73-214-37	2,37	2,04	1,62

Fresnel lens for IR sensors

Mfr. Murata



Type	Stock no.	Price/each		
		1-	10-	100-
IML-0666	73-214-39	2,60	2,23	1,77

Fresnel lens for IR sensors

Mfr. Murata



Type	Stock no.	Price/each		
		1-	10-	100-
PPGI0601	73-214-42	1,93	1,66	1,32

Ultrasonic transmitter/receiver

Mfr. Murata

An ultrasonic transmitter/receiver in watertight design. It has spread angle of 110/50° and range from 0.2 to 1.5 m.



Type	Stock no.	Price/each		
		1-	10-	100-
MA40MF14-5B	73-214-30	12,70	10,90	8,60

Ultrasonic transmitter/receiver

Mfr. Murata

An ultrasonic transmitter/receiver in watertight design. It has spread angle of 75° and range from 0.2 to 1.5 m.



Type	Stock no.	Price/each		
		1-	10-	100-
MA40E8-2	73-214-31	22,50	19,30	15,40

Ultrasonic transmitter/receiver

Mfr. Murata

An ultrasonic transmitter/receiver with spread angle of 11° and range from 0.1 to 0.3 m.



Type	Stock no.	Price/each		
		1-	10-	100-
MA300D1-1	73-214-34	19,50	16,80	13,30

Ultrasonic transmitter/receiver

Mfr. Murata

An ultrasonic transmitter/receiver with spread angle of 80° and range from 0.2 to 4 m.



Description	Stock no.	Price/each		
		1-	10-	100-
MA40S4S ultrasonic transmitter	73-214-33	5,16	4,42	3,53
MA40S4R ultrasonic receiver	73-214-32	5,16	4,42	3,53

Fiberscope Testo 318-P



Fiberscope 318-P facilitates easy visual inspections in hard to reach places such as ventilation systems, machines, construction sites etc. Inspection of corrosion, wear and tear, welding joints, loose parts and much more can quickly and easily be made by using this fiberscope. The flexible fiberscope can be guided in hollow spaces, bore holes and bends. Defective parts can be inspected without dismantling. Fiberscope 318-P is durable, easy to handle and ergonomically designed. At inspection, a 7400 pixel quality optic and a powerful halogen light which covers 48° field of view are used. Minimum focus distance is 10 mm. Maximum bending radius 80 mm. Powered with a 6 V lithium battery CRP2 (not included). The probe tip can be immersed in fluids since the lens is tight. Two probe lengths are available. It is possible to order other lengths, up to several meters upon request.

Supplied with 45° mirror, magnet and carrying case.

Description	Stock no.	Price/each
Fiberscope Testo 318-P4	80-710-78	408,00
Fiberscope Testo 318-P8	80-710-86	408,00

DESIGN WITH MURATA SENSORS

Using piezoelectric ceramics and magnetic resistive elements Murata has developed a wide range of sensing technologies.

SMD Infra Red sensors and Fresnel lenses, Ultrasonic-, Acceleration-, or Rotary position sensors. We sense what you need.

Representative range is in stock at ELFA AB.

Please download our catalogues on sensors, P19E, S21E and R50E at www.murata.com/catalog/

Murata Electronics (Netherlands) B.V. - www.murata.com - email: info@murata.nl



Mfr. Siemens

Expandable logic module system for automation. The base unit with or without display, digital/analogue expansion modules plus communications modules. Several power supplies to choose from. Mounted on DIN-rail.

Description	Stock no.	Price/each	
		1–	5–
Logic module LOGO! 12/24 RC	25-704-63	140,00	130,00
Logic module LOGO! 24	25-704-71	119,00	111,00
Logic module LOGO! 24 RC	25-704-89	134,00	125,00
Logic module LOGO! 230 RC	25-704-97	138,00	128,00
Logic module LOGO! 12/24 RCo	25-705-05	108,00	99,40
Logic module LOGO! 24o	25-705-13	103,00	95,10
Logic module LOGO! 24 RCo	25-705-21	112,00	104,00
Logic module LOGO! 230 RCo	25-705-39	110,00	102,00
Expansion module LOGO! DM 8 12/24R	25-705-47	73,80	68,60
Expansion module LOGO! DM 8 24	25-705-54	67,50	62,70
Expansion module LOGO! DM 8 24R	25-705-62	75,30	70,00
Expansion module LOGO! DM 8 230R	25-705-70	73,30	68,10
Expansion module LOGO! DM 16 24	25-705-88	110,00	102,00
Expansion module LOGO! DM 16 24R	25-705-96	119,00	111,00
Expansion module LOGO! DM 16 230R	25-706-04	119,00	111,00
Expansion module LOGO! AM 2	25-706-12	87,90	81,60
Expansion module LOGO! AM 2 PT100	25-706-20	107,00	99,10
Expansion module LOGO! AM 2 AQ	25-706-38	127,00	118,00
Communications module LOGO! CM EIB/KNX	25-706-46	179,00	166,00
Communications module LOGO! CM AS-i	25-706-53	74,80	69,50

Accessories for LOGO series logic module!

Description	Stock no.	Price/each	
		1–	5–
Text-display LOGO! TD	25-706-61	158,00	147,00
Software LOGO! SoftComfort V6.0	25-706-79	59,70	55,50
Software LOGO! Upgr SoftComfort V6.0	25-706-87	23,10	21,40
Memory card LOGO! MC	25-706-95	21,90	20,30
Battery card LOGO! BC	25-707-03	20,80	19,30
Memory-/battery card LOGO! MC/BC	25-707-11	33,50	31,10
RS232-Cable assembly LOGO! PC-C	25-707-86	91,00	84,50
USB-Cable assembly LOGO! USB-C	25-707-94	91,00	84,50
Modem cable assembly LOGO! M-C	25-708-02	91,00	84,50
Manual LOGO! HandBook English	25-708-10	16,40	14,90
Switch-Module LOGO! Contact 24	25-707-29	19,80	18,40
Switch-Module LOGO! Contact 230	25-707-37	16,30	15,20
Power supply LOGO! Power 12V/1,9A	25-707-45	84,40	78,40
Power supply LOGO! Power 12V/4,5A	25-707-52	113,00	105,00
Power supply LOGO! Power 24V/1,3A	25-707-60	59,40	55,10
Power supply LOGO! Power 24V/2,5A	25-707-78	90,00	83,50
LOGO! Insys GSM Box	25-708-28	605,00	562,00
LOGO! News Box 12/24RC	25-708-44	207,00	192,00
LOGO! News Box 230RC	25-708-51	206,00	192,00



Digital memory oscilloscope with 7" wide colour display. DPO (Digital Phosphor Oscilloscope), MSO (Mixed Signal Oscilloscope) with 16 channel logic analyzer. Both models can be complemented with decoding modules for several serial busses. USB port at the front for easy saving of curve forms and settings. USB port at the rear for remote controlling.

Supplied with 1 pcs P2221 probe/channel, English user's manual, OpenChoice and NI LabView Signal Express software plus traceable calibration's certificate. MSO models supplied with a 16 channel logic probe (P6316)

Description	Stock no.	Price/each
Oscilloscope DPO2012	76-266-10	2243,00
Oscilloscope DPO2014	76-266-17	2703,00
Oscilloscope DPO2024	76-266-25	3254,00
Oscilloscope MSO2012	76-266-33	3114,00
Oscilloscope MSO2014	76-266-41	3745,00
Oscilloscope MSO2024	76-266-58	4485,00
Optional module DPO2Auto	76-266-66	606,00
Optional module DPO2Comp	76-266-68	606,00
Optional module DPO2Embd	76-266-74	606,00
Optional module DPO2Conn	76-266-76	345,00
Soft carrying case ACD2000	76-266-82	166,00
Rack mount kit RMD2000	76-266-85	362,00

Spectrum analyser N9340B, 3 GHz



Agilent Technologies



Hand-held spectrum analyser for field use.

Description	Stock no.	Price/each
Spectrum analyser N9340A	76-297-02	5937,00
Spectrum analyser N9340A-TG3	76-297-28	7508,00

Frequency counter 5Hz–3GHz

Mfr. Thurlby Thandar

Hand-held battery-operated frequency and period counter. High sensitivity at all frequencies. Input A is fitted with a low pass filter (50kHz) which improves measurement of low frequencies. Clear 8-digit display with 15 different function texts. Hold function for locking measured value. Auto shutoff.

Supplied with English directions.

Description	Stock no.	Price/each
Frequency counter PFM3000	76-360-20	155,00
Case for PFM3000	76-360-46	22,70



Installation rack cabinet 540 depth

Easy-to-assemble, stable rack cabinet in black steel plate. Consists of top, bottom and sides with rack rails at both the front and rear. The sides are ventilated and also prepared for strain relief angles. The rack is supplied with adjustable feet that can easily be replaced by M10 thread wheels at the bottom of the cabinet.

Colour: Black

Door, back section, wheels, shelves, drawers, covering plates, etc., must be ordered separately.

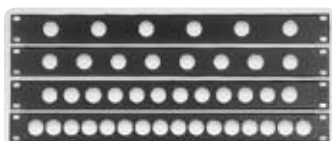


Description	Stock no.	Price/each
Rack cabinet D540, 12HE 578x540x540 mm	52-158-01	257,00
Rack cabinet D540, 18HE 843x540x540 mm	52-158-19	315,00

D series contact panel

Finger guard for installation rack cabinet. 24 mm hole.

Colour: Black



Type	Description	Stock no.	Price/each		
			1-	5-	-
92029	Contact panel D/24mm hole 1HE, 6xXLR	52-161-14	10,70	9,66	NaN
92072	Contact panel D/24mm hole 1HE, 8xXLR	52-161-22	11,20	10,20	NaN
92205	Contact panel D/24mm hole 1HE, 10xXLR	52-161-30	11,20	10,20	NaN
92071	Contact panel D/24mm hole 1HE, 12xXLR	52-161-48	11,80	10,70	NaN
92073	Contact panel D/24mm hole 1HE, 16xXLR	52-161-55	12,90	11,70	NaN
92068	Contact panel D/24mm hole 2HE, 16xXLR	52-161-63	12,90	11,70	NaN
92069	Contact panel D/24mm hole 2HE, 24xXLR	52-161-71	14,00	12,80	NaN
92074	Contact panel D/24mm hole 2HE, 32xXLR	52-161-89	15,10	13,80	NaN

'Aerobic-rack'

Frame for installation, e.g. in spinning and aerobics halls. 22HU frame for assembly, e.g. of amplifier, EQ and crossover network, plus 8HU L-shaped for top assembly, e.g. of mixer board and CD controller. Very easy to assemble using 6 screws. The sides are ready for strain relief angles for power amplifiers and other heavy kit, for example.

Colour: Black



Description	Stock no.	Price/each
Aerobic-rack 22+8HE 1350x540x440 mm	52-158-27	237,00

Cover plate, bowed aluminium

Cover plate for installation rack cabinet. Bowed aluminium design. Thickness of material 1,5mm.

Colour: Black



Description	Stock no.	Price/each	
		1-	5-
Cover plate 1HE, aluminium	52-159-42	9,51	8,65
Cover plate 2HE, aluminium	52-159-59	11,20	10,20
Cover plate 3HE, aluminium	52-159-67	12,30	11,20
Cover plate 4HE, aluminium	52-159-75	13,50	12,20

Skeletool™

Multi-purpose tool with bent handles and low weight with 10 functions made of stainless steel. One-hand operated knife blade with straight knife made of 420HC steel. Bit holder in the shaft and equipped with carabiner. Functions and blades: combination pliers with tip, serrated pipe grip, cutter, power cutter, straight knife 68 mm, bit holder, 2 pcs dual bits with 1/4" and 3/16" flat blade drivers and Phillips driver PH1, PH2, cable stripper, carabiner/bottle opener and detachable pocket clip.

Skeletool CX™ has the same functions but has handles that are partly made of DLC-coated stainless steel with carbon-fibre handle insert plus knife blade made of 154CM steel with combo straight/serrated Knife.



Description	Stock no.	Price/each	
		1-	3-
Leatherman Skeletool	80-471-69	70,60	67,10
Leatherman Skeletool CX	80-471-85	88,20	83,70

Series 31 Plastic box

BOSS

Mfr. Boss Enclosures Ltd

Small, handy two-part plastic box for hand-held applications. Neatly structured surface with areas marked on the upper and lower part, e.g. for membrane keyboard. Size 2 (60x14x18), fitted with loop for keyring. Protection class IP65 with packing. Snap fits.

Material: ABS plastic
Colour: Black (RAL 9004), light grey (RAL 7035)



Type	Description	Stock no.	Price/each		
			1-	10-	50-
33131201	Plastic box 33131201 B 55x40x18	50-321-07	2,85	2,74	2,42
33131202	Plastic box 33131202 B 60x40x18	50-321-15	3,03	2,89	2,57
33131203	Plastic box 33131203 B 70x50x20	50-321-23	3,61	3,45	3,07
33131001	Plastic box 33131001 W 55x40x18	50-321-31	2,85	2,74	2,42
33131002	Plastic box 33131002 W 60x40x18	50-321-49	3,03	2,89	2,57
33131003	Plastic box 33131003 W 70x50x20	50-321-56	3,61	3,45	3,07
33131301	Keypad x3 33131301 55/60x40x18	50-321-64	11,20	10,80	9,50
33131302	Keypad x6 33131302 70x50x20	50-321-72	13,70	13,10	11,60
33070041	Gasket IP65 33070041	50-321-80	1,35	1,29	1,15

33 Series Plastic box

BOSS

Mfr. Boss Enclosures Ltd

Two-part box with gummed sides and recessed panel surfaces, e.g. for membrane keyboard. Suitable for hand-held applications. Bushings for assembly of PCBs in both top and bottom section. Screw-fitting battery compartment. Protection class IP65 with gasket. Snap fits.

Material
top/bottom section: ABS plastic
side sections: TPE (solid rubber)
Colour: Light grey (RAL 7035), grey (RAL 7001)



Type	Description	Stock no.	Price/each		
			1-	10-	50-
33133001	Plastic box 33133001 LG 145x95x25	50-322-06	23,10	22,10	19,60
33133002	Plastic box 33133002 LG 145x95x35	50-322-14	29,20	28,00	24,80
33133003	Plastic box 33133003 LG 185x110x25	50-322-22	24,50	23,50	20,80
33133004	Plastic box 33133004 LG 185x110x35	50-322-30	31,30	30,00	26,60
33133005	Plastic box 33133005 LG 200x120x25	50-322-48	28,10	26,90	23,90
33133006	Plastic box 33133006 LG 200x120x35	50-322-55	33,80	32,40	28,70

Connectors for everyone

In this issue of ELFA info, we present to you a selection of connectors from our wide range assortment, which are suitable for various application areas. The connectors that we have chosen belong to the following business areas: military connectors (MIL), medicine and instruments, industrial and automation and professional audio/video.

MIL connectors

They are developed to meet the tough demands that the military, space, shipping and aerospace industry require. They are constructed to handle harsh conditions and demanding environments. There are MIL-connectors for all types of needs. In this issue of ELFA info, we have chosen to present the most sought after series. If you are unable to find the MIL-connectors you are looking for in our ELFA catalogue or our webpage, we will gladly assist you in finding them. We can deliver all types of MIL-connectors that our distributors/vendors have in their respective assortment.



MIL-C-38999 3 series
Thread-locking. Including for military airplanes, boats and radio applications, where demands are extremely high.



Back covers to MIL-C-38999



RJ-Field and USB Field
For more secure encapsulation of network connections in industry and outdoor environments.



MIL-C-26482
Bayonet lock. For demanding military and industrial applications.



VG95234
Reversed bayonet lock.



DS5015
Manufactured according to MIL-C-5015 standard, but are RoHS approved.



EZ5015
The cable is easily connected using just a screwdriver.



Datamate
High performance and high vibration resistant 2 mm connectors.



Micro-D
Connector according to MIL-C-83513.

Medical Devices

Electronic functionality is immensely important in medical technology, especially, when considering patient safety. The connector in medical devices, play a central role for the equipments' total reliability. Very high demands are put upon the number of connections and high sealing capability that the connectors handle. ELFA stocks a wide range of assortments from renowned connector manufacturers that are specially, constructed for medical devices and equipments.



Circular connectors



Buccaneer 400
Watertight connector IP68



HR30
Push-pull locking
IP67



Power supply connector
IEC60320 connector
Mains connector



Redel 1B
Push-pull locking



Serie B
Push-pull locking



HR10
Push-pull locking



Coaxial connector
Coaxial connector, just to name a few: SMA, QMA, SMB, BNC, MCX, MMCX, Adaptors for inter-connection and between different series.

Board-to-board and board-to-cable



Laboratory connectors
2 and 4 mm banana plugs, sockets, pole screws and cable assembly.



Micro Fit
Connector family both for signal and power supply, surface and hole mounted.



D-Sub connector with cover

- Varieties for solder, crimp, idc, vir- and screw terminations.
- Standard, high-density, mixed layouts and filters.
- Wide range of covers and accessories.



Mate-N-Lock
Series for power connection, lockable connector housing that can be fitted with both male and female connectors.



Micro-Match
High-performance corrosion resistant connector for low price.



Mini Fit Jr
Connector family for power supply, polarized housing with positive locking.



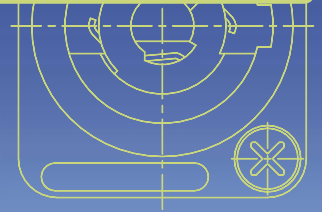
Picoflex
Connector family for flat cable, low profile, male and female connectors. Even ready-made cable assemblies in different lengths and different pole numbers.



FFC connector
1.0 mm surface mounted angled connector, ZIF type with glide lock for cable.

Professional audio and video

ELFA sells audio/video connectors that are essential in most assignments and situations in which you as a manufacturer, installation professional, sound technician, productions company, repairman etc might encounter. Our assortment is comprehensive and covers DIN, Mini-DIN, Speakon, PowerCon, speaker connection panels, RCA, XLR, SCART, HDMI, DVI, BNC for HDTV-broadcast (SDI), RJ45 for CAT 5 och 6, Tele and Toslink. Besides connectors, we also have adaptors for connecting between the different standards. We can meet all of your needs. If the product you are searching for is not part of our ordinary stocked item, in most cases, we can bring home the product against lead-time. Please contact our quotation's department!



Speakon
Connector for use between amplifier and speaker



C91
Microphone and signal connector



PowerCon
Power supply connector for mobile electronic.



XLR connector
Connector for signal and power supply. Available with plenty new colour markings



Teleconnector
Connector for signal transmission



Ethercon
Connector for data transmission, CAT 5 and 6



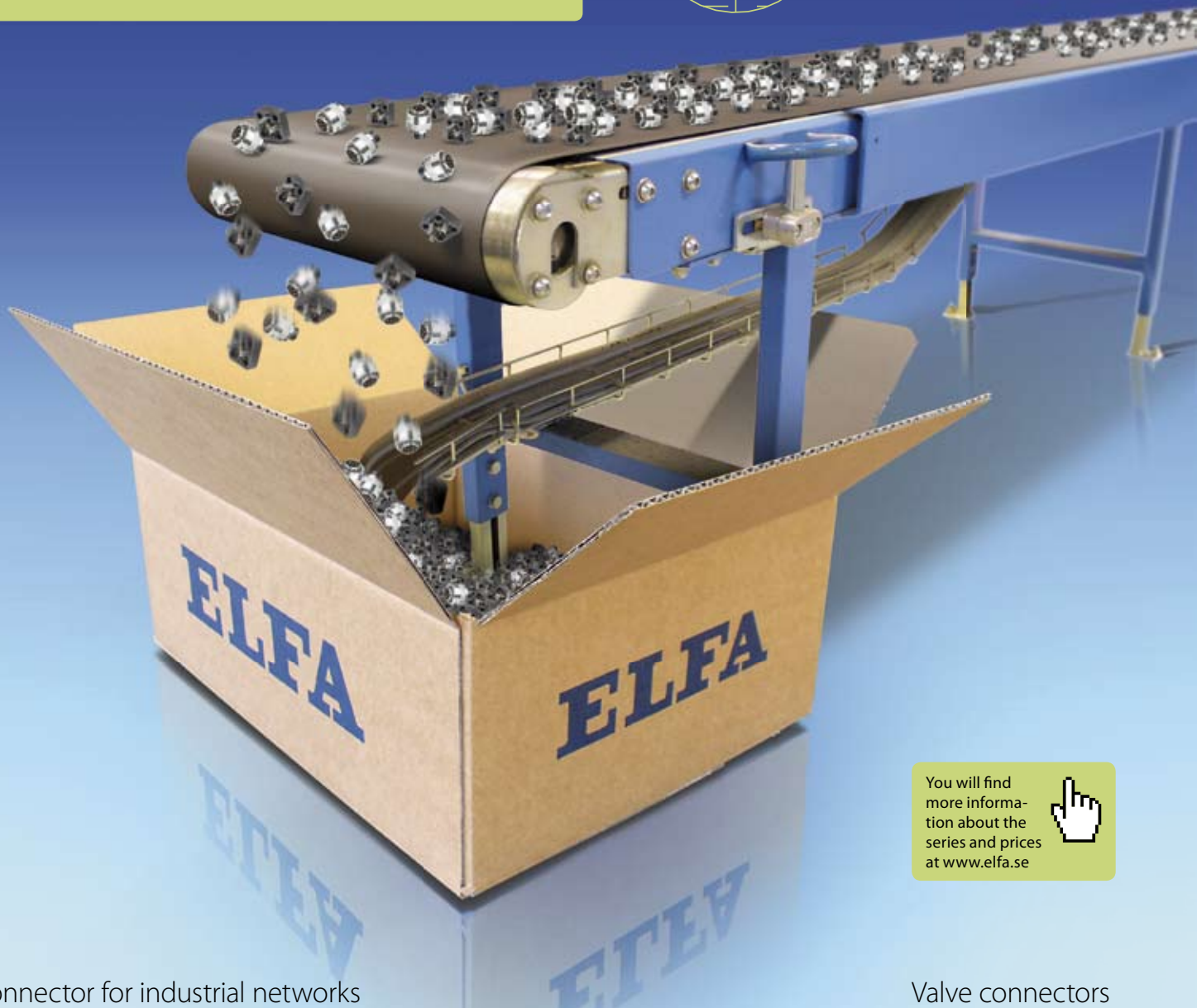
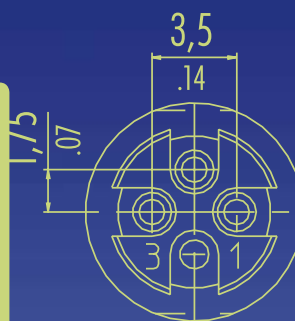
HDMI
Connector for digital audio and video transmission, replaces SCART. Suitable for installation professionals who would like to adjust the length of the cable plus draw HDMI cable in a VP pipe.



BNC
Connector for SDI signals, among other things, used in HDTV –broadcasting productions. For these, we have coloured back covers.

Industry and Automation

Reliable automation system considerably increases productivity and facilitates competitive advantage in the long term. Exceptionally high demands are therefore imposed on connectors for the industry and automation; such as resistance to vibrations, water and chemical. In our ELFA catalogue and webpage, you will find plenty of connectors from the leading manufacturers specializing in this field.



You will find more information about the series and prices at www.elfa.se



Connector for industrial networks



Buccaneer Ethernet Series



Buccaneer USB Series

Valve connectors



DIN 43650 connector

Circular connectors



Ecomate



TrimTrio



CPC series

Harting-connector



HAN series, inserts and cover

M8-M12 connector



768 series and 713 series



Harax series



"Twist and Click", cable assembly



Standard M8-M12 cable assembly



New!

FLUKE®

Fluke 719 Electric Pressure Calibrator

Now you can calibrate and test pressure devices quickly and easily with one hand, saving valuable time. With the innovative, built-in electric pump, the Fluke 719 Electric Pressure Calibrator provides pressure calibration at your fingertips!

- Electric pump for one handed pressure calibration
- Best in class pressure measurement uncertainty of 0.025%
- Measure and source mA with best in class 0.015% accuracy
- Precision pressure adjust vernier for accurate pressure calibration
- Variable release rate bleed valve for easy pressure adjustment
- Ideal performance for high accuracy transmitter calibration
- 30 PSI and 100 PSI pressure ranges
- Source mA with simultaneous pressure measurement to test valves and I/Ps
- Simulate mA signals to troubleshoot 4-20 mA loops
- Test pressure switches with built in switch test function

Fluke. *Keeping your world up and running.™*

Forget the Hassle of Hand Pumping

For further, please contact your local ELFA sales office or visit your local ELFA website

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KEMET
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We offer you the world's widest selection of capacitors:

- Aluminum
- Ceramic
- Electrolytic
- Film
- Paper
- Tantalum

We are proud and excited to join KEMET, the capacitance leader.

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CE - Marking? Dectron has the solution!

www.labbaco-reklambyrå.se

We offer

- An EMC Lab accredited by Swedac for the most common standards.
- Semi-anechoic chamber, weather protected 10 metre open area test site with good loading possibilities.



We can also help you with

- Adaptation of products for CE-marking.
- Testing and verification in accordance with the EMC directive and the Low Voltage Directive (LVD).
- Measurements onsite at the customer.
- Measurement of acoustic noise in semi-anechoic chamber.

Do you want to learn more? Get in touch, we will gladly answer your questions!

DECTRON
part of the KEMET Corporation

Thörnblads väg 6, SE-386 90 Färjestaden, Sweden
Contact persons: Göran Tordsson, phone: +46 485-56 39 08
Ulf Heiding, +46 485-56 39 04, Tobias Gustavsson, +46 485 56 39 05
E-mail: info@dectron.se www.dectron.se

AVR32

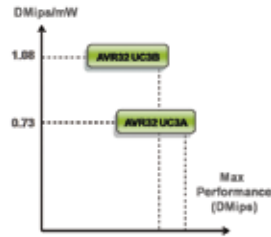
Mfr. Atmel

32-bit AVR microcontroller

32UC3A

Mfr. Atmel

32UC3A0128: 128 kB Flash, 32 kB SRAM
32UC3A0256: 256 kB Flash, 64 kB SRAM
32UC3A0512: 512 kB Flash, 64 kB SRAM
10/100 Ethernet MAC
USB 2.0 (12 Mbps) with On-The-Go (OTG) capability
SRAM/SDRAM external bus interface
80 Dhrystone MIPS (DMIPS) @ 66 MHz
40 mA @ 3.3V



Description	Stock no.	Price/each		
		1–	10–	300–
32UC3A0128 32-bit uC LQFP144	73-219-54	9,55	8,27	6,62
32UC3A0256 32-bit uC LQFP144	73-219-53	10,80	9,36	7,49
32UC3A0512 32-bit uC LQFP144	73-219-52	14,00	12,20	9,69

32UC3B

32UC3B064: 64 kB Flash, 16 kB SRAM
32UC3B0128: 128 kB Flash, 32 kB SRAM
32UC3B0256: 256 kB Flash, 32 kB SRAM
USB 2.0 (12 Mbps) with On-The-Go (OTG) capability
72 Dhrystone MIPS (DMIPS) @ 60 MHz
23 mA @ 3.3V

Description	Stock no.	Price/each		
		1–	10–	450–
32UC3B064 32-bit uC TQFP64	73-219-57	6,83	5,92	4,74
32UC3B0128 32-bit uC TQFP64	73-219-56	7,45	6,46	5,16
32UC3B0256 32-bit uC TQFP64	73-219-55	8,58	7,43	5,96

Evaluation kit for ATUC3A

Mfr. Atmel

A complete package for quick evaluation of the ATUC3A family.

Type	Stock no.	Price/each
ATEVK1100	73-219-48	131,00



Evaluation kit for ATUC3B

Mfr. Atmel

A complete package for quick evaluation of the ATUC3B family.

Type	Stock no.	Price/each
ATEVK1101	73-219-49	75,00



APDS-9003

Mfr. Avago Technologies

Ambient light sensor

An analogue sensor which detects surrounding light, e.g. for automatic adjustment of light sources such as background light on displays. The spectral sensitivity of the sensor corresponds to that of the human eye (450-650nm).



Type	Stock no.	Price/each		
		1–	25–	100–
APDS-9003	75-104-56	0,73	0,59	0,48

ATSTK 600

Mfr. Atmel

AVR and AVR32 Starter kit

A complete starter kit and development system for both the Atmel 8-bit AVR processors and the new 32-bit AVR32 family. The package includes a special board with an assembled ATmega2560. An adaptor/socket board is available for other circuits and can be selected and ordered separately according to encapsulation type.

Type	Description	Stock no.	Price/each
ATSTK600	ATSTK600 Starter kit AVR/AVR32	73-219-35	196,00



Adaptor/socket board for ATSTK 600

Mfr. Atmel

These boards can be ordered depending on which encapsulation type you wish to attach to the ATSTK600. The boards are supplied as a base board and one or more adaptor boards, which are then assembled together before connection to the ATSTK600. For example, the ATSTK600-DIP40 board consists of a socket board with a 40-pin zero insertion force socket and is supplied with seven different adaptor boards for use depending on the number of pins and the pin configuration.



Type	Description	Stock no.	Price/each
ATSTK600-DIP40	ATSTK600-DIP40 adapt. board for ATSTK600	73-219-36	102,00
ATSTK600-SOIC	ATSTK600-SO adapt. board for ATSTK600	73-219-37	108,00
ATSTK600-TQFP100	ATSTK600-TQFP100 adp. board for ATSTK600	73-219-38	102,00
ATSTK600-TQFP32	ATSTK600-TQFP32 adp. board for ATSTK600	73-219-39	102,00
ATSTK600-TQFP64	ATSTK600-TQFP64 adp. board for ATSTK600	73-219-40	102,00

ASMC-Pxxx LED for surface mounting

Mfr. Avago Technologies

An intermediate strength LED that can be driven up to 70mA.
PLCC-4 encapsulation.



Type	Description	Stock no.	Price/each		
			1–	25–	100–
ASMC-PRB9-TV005	ASMC-PRB9 LED SMD red PLCC-4	75-104-80	0,40	0,32	0,27
ASMC-PHB9-TW005	ASMC-PHB9 LED SMD redorange PLCC-4	75-104-72	0,40	0,32	0,27
ASMC-PAB9-TV005	ASMC-PAB9 LED SMD orange PLCC-4	75-104-64	0,40	0,32	0,27

Photo-diode S5573

Mfr. Hamamatsu

Description	Stock no.	Price/each		
		1–	10–	25–
S10784 photo diode	75-207-00	6,16	4,93	4,11



Semiconductor relay for SMD

Mfr. Avago Technologies

Semiconductor relay with MOSFET- transistors in SO4-encapsulation. Intended for both AC & DC voltage. High isolation voltage 3750 V. Suitable for different signal applications within telecommunications, data, automation etc.



Type	Stock no.	Price/each		
		1–	25–	100–
ASSR-1218-003E	75-105-06	0,91	0,73	0,62

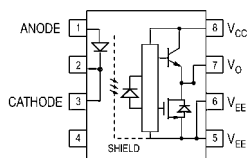
ACPL-H312

Mfr. Avago Technologies

Optocoupler for running IGBT modules

Approvals: UL, CSA, IEC

Type	Stock no.	Price/each		
		1-	25-	100-
ACPL-H312	75-104-49	2,18	1,74	1,45



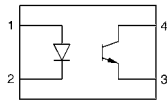
HCPL 181

Mfr. Avago Technologies

Optocoupler with 80V collector voltage

Approvals: UL, CSA, IEC

Description	Stock no.	Price/each		
		1-	25-	100-
HCPL181 optocoupler ctr 50/600% SO4	75-105-22	0,19	0,15	0,13



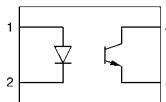
HCPL 817

Mfr. Avago Technologies

Optocoupler

Approvals: UL, CSA, IEC

Description	Stock no.	Price/each		
		1-	25-	100-
HCPL817 optocoupler ctr 50/600% DIL4	75-105-48	0,19	0,15	0,13



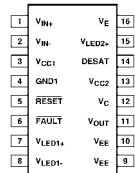
HCPL-316J

Mfr. Avago Technologies

Optocoupler for driving IGBT modules

Approvals: UL, CSA, IEC

Description	Stock no.	Price/each		
		1-	10-	45-
HCPL-316J optocoupler IGBT SO16	75-105-30	5,62	4,50	3,75



Minibridge Connector

Male connector for surface mounting on PCB.



Type	Description	Stock no.	Price/each
214011	Male connector Minibridge angled, 2-p	43-626-00	1,43
234450	Male connector Minibridge angled, 3-p	43-626-02	1,57
214012	Male connector Minibridge angled, 4-p	43-626-04	1,64
214013	Male connector Minibridge angled, 6-p	43-626-06	1,89
214014	Male connector Minibridge angled, 8-p	43-626-08	2,08
284695	Male connector Minibridge straight, 2-p	43-626-20	1,64
284696	Male connector Minibridge straight, 3-p	43-626-22	1,98
284697	Male connector Minibridge straight, 4-p	43-626-24	1,89
284698	Male connector Minibridge straight, 6-p	43-626-26	2,08
284699	Male connector Minibridge straight, 8-p	43-626-28	2,28

**International
IOR Rectifier**
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We have now heavily expanded our stocked product assortment from International Rectifier.

ELFA has currently a very close cooperation with IR, for an increased news feed and immediate availability of new products, among others. Apart from the ordinary products in stock, we can of course offer products from the rest of the IR assortment. Please request a quotation for larger quantities,



IR camera FLIR i5

- "2,8" LCD-display
- 80x80 pixel resolution
- 17°x17° FOV (Field Of View)
- 0 to +250 °C
- 5 hours per charging
- Weight only 340 g"

"Versatile small and light infrared camera. Very easy-to-use. The built-in rechargeable lithium battery provides 5 hours continuous operation time after each charge. A lucid LCD-display and SD memory card makes the job easy. Command menu on screen for function choices. The infrared camera produces radiometric image that can be saved and edited/processed in a computer with accompanying software "QuickReport" and thereafter to create hardcopy reports. USB-port"



Description	Stock no.	/each
IR camera FLIR i5	76-669-51	2490,00
Soft case FLIR	76-669-69	95,00

Panel connector MIL-DTL-38999 3 series

Amphenol®

Mfr. Amphenol

The series is expanded with square flange panel connectors.



Description	Stock no.	Price/each
D38999/20WB5PN, 11-5 flange	5 44-502-35	43,50
D38999/20WB5SN, 11-5 flange	5 44-502-50	38,50
D38999/20WB98PN, 11-98 flange	6 44-502-76	37,40
D38999/20WB98SN, 11-98 flange	6 44-502-92	38,90
D38999/20WB35PN, 11-35 flange	13 44-503-00	39,20
D38999/20WB35SN, 11-35 flange	13 44-503-34	40,10
D38999/20WC8PN, 13-8 flange	8 44-503-59	39,50
D38999/20WC8SN, 13-8 flange	8 44-503-75	44,20
D38999/20WC98PN, 13-98 flange	10 44-503-91	36,80
D38999/20WC98SN, 13-98 flange	10 44-504-09	40,30
D38999/20WC35PN, 13-35 flange	22 44-504-58	39,80
D38999/20WC35SN, 13-35 flange	22 44-504-66	42,80
D38999/20WD5PN, 15-5 flange	5 44-504-74	38,20
D38999/20WD5SN, 13-5 flange	5 44-504-82	40,40
D38999/20WD97PN, 13-97 flange	12 44-504-90	42,80
D38999/20WD97SN, 13-97 flange	12 44-506-72	44,80
D38999/20WD18PN, 13-18 flange	18 44-506-80	39,60
D38999/20WD18SN, 13-18 flange	18 44-506-98	44,10
D38999/20WD19PN, 13-19 flange	19 44-507-06	40,70
D38999/20WD19SN, 13-19 flange	19 44-507-97	45,60
D38999/20WD35PN, 13-35 flange	37 44-510-35	41,30
D38999/20WD35SN, 13-35 flange	37 44-510-43	48,20
D38999/20WE6PN, 17-6 flange	6 44-510-50	43,30
D38999/20WE6SN, 17-6 flange	6 44-510-68	47,30
D38999/20WE99PN, 17-99 flange	23 44-510-76	48,40
D38999/20WE99SN, 17-99 flange	23 44-510-84	49,80
D38999/20WE26PN, 17-26 flange	26 44-510-92	41,80
D38999/20WE26SN, 17-26 flange	26 44-511-18	48,70
D38999/20WE35PN, 17-35 flange	55 44-511-26	44,70
D38999/20WE35SN, 17-35 flange	55 44-511-34	54,90
D38999/20WF11PN, 19-11 flange	11 44-511-42	42,90
D38999/20WF11SN, 19-11 flange	11 44-511-59	47,90
D38999/20WF32PN, 19-32 flange	32 44-511-67	45,10
D38999/20WF32SN, 19-32 flange	32 44-511-75	51,80
D38999/20WF35PN, 19-35 flange	66 44-511-83	46,80
D38999/20WF35SN, 19-35 flange	66 44-511-91	57,70
D38999/20WG41PN, 21-41 flange	41 44-513-24	46,90
D38999/20WG41SN, 21-41 flange	41 44-513-32	55,10
D38999/20WG35PN, 21-35 flange	79 44-513-40	49,50
D38999/20WG35SN, 21-35 flange	79 44-513-57	65,00

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Thanks to the patented design of the V1000 series and modern manufacturing, it is built for a 10 year life-time without maintenance. The new features guarantee a 100% expectation match. And with a field failure rate of less than 1 in 10,000, the new V1000 series inverter will outperform all other inverters long after it has been implemented.

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- Current vector control
- IM and PM motor control
- Embedded safety stop function
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The Weller® WD 1000HPT soldering station designed for those soldering operations where you need a combination of high energy and maximum precision.

The WD 1000HPT soldering station features Weller®'s new 120 W High Power Tool, our new WP 120 soldering iron. This iron is ideal for soldering on challenging circuit boards that cause a large dissipation in heat transfer.

The new WP 120 High Power Tool offers twice as much power and efficiency in a small and ergonomic pencil design. Combining a compact, powerful heating element with a replaceable soldering tip the WP 120 guarantees dynamic performance and best life cycle costs.

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Fax: +49 7143-580-108, www.weller.eu

Superseal 1.5 Connector

Mfr. AMP

Watertight connector series suitable for vehicular applications, among other things. Resistant to ozone, salt, petrol, diesel, oils, brake fluid, etc.

Insulation material: Polyamid 6.6
Insulation resistance: 200 MΩ
Protection class: IP67
Temperature range: -40...+125 °C

Contact material: Pin: Tin-plated brass
socket: Phosphor bronze
Contact resistance: 3 mΩ
Rated current: 14 A



Type	Description	Stock no.	Price/each
0-0282079-2	Contact housing Superseal female 1-pole	44-027-00	0,88
0-0282080-1	Contact housing Superseal female 2-pole	44-027-02	0,75
0-0282087-1	Contact housing Superseal female 3-pole	44-027-04	0,77
0-0282088-1	Contact housing Superseal female 4-pole	44-027-06	0,90
0-0282089-1	Contact housing Superseal female 5-pole	44-027-08	1,24
0-0282090-1	Contact housing Superseal female 6-pole	44-027-10	1,37
0-0282103-1	Contact housing Superseal male 1-pole	44-027-16	0,43
0-0282104-1	Contact housing Superseal male 2-pole	44-027-18	0,73
0-0282105-1	Contact housing Superseal male 3-pole	44-027-20	0,77
0-0282106-1	Contact housing Superseal male 4-pole	44-027-22	1,01
0-0282107-1	Contact housing Superseal male 5-pole	44-027-24	1,06
0-0282108-1	Contact housing Superseal male 6-pole	44-027-26	1,45
0-0183024-1	Contact element Superseal pin conn.	44-027-30	0,45
0-0183036-1	Contact element Superseal pin conn.	44-027-36	0,45
0-0183025-1	Contact element Superseal socket conn.	44-027-32	0,46
0-0183035-1	Contact element Superseal socket conn.	44-027-34	0,46
0-0281934-2	Seal yellow	44-027-40	0,16
0-0281934-3	Seal red	44-027-42	0,16
0-0281934-4	Seal green	44-027-44	0,16
0-0282081-1	Blind plug Superseal	44-027-46	0,21
0-0880810-1	Protective cover Superseal 2-pole	44-027-48	1,23
0-0880811-2	Protective cover Superseal 3-pole	44-027-50	1,59
0-0493581-1	Protective cover Superseal 4-pole	44-027-52	1,28
0-0354940-1	Crimptool without die set	80-481-91	NaN
0-0058583-2	Die for crimp tool	80-481-93	121,00
0-0785084-1	Extraction tool Superseal	80-481-95	20,70

Remote controlled power switch/dimmer/transformer for 12 V lighting

Mfr. Nexa

A complete kit containing a wall transmitter with power switch/dimmer function plus electronic transformer for 12 volts halogen lighting. The wall transmitter is powered with A23 type battery (included). This allows for the wall transmitter to be mounted in damp environments. Coding is the same as other Nexa wireless receivers and the transformer can be controlled via all remote controls of the same make. Up to 256 different combination codes.



Input voltage: 230 V ac
Output voltage: 11.5 V
Max power: 30-105 W (3x35 or 5x20 W)
Cable length: min 0.3 m, max 2 m
Frequency: 433.92 Hz
Range: approx. 30 m

Type	Stock no.	Price/each
HDR-105 + WST-512	36-010-69	33,10

Electronic transformer/receiver

Mfr. Nexa

Electronic transformer/receiver for 12 volts halogen lamps. Built-in dimmer function. Can be used with all Nexa made remote controls.



Input voltage: 230 V ac
Output voltage: 11.5 V
Max power: 30-105 W (3x35 or 5x20 W)
Cable length: min 0.3 m, max 2 m
Frequency: 433.92 Hz

Type	Description	Stock no.	Price/each
HDR-105	Electronic transformer 230V/11.5V 105W	36-010-77	19,80

2-way wall transmitter, dimmer function

Mfr. Nexa

Battery powered wall transmitter for controlling two independent receivers. Dimmer function (dimmer receiver required). Staircase wiring possible (two way). Since transmitter and receiver can be coded, several units can be utilized in near proximity without the risk of interference. Can be used with all Nexa receivers, even those that are "self-learning". Supplied with 3 V battery type CR2032.



Frequency: 433.92 Hz
Range: approx. 25 m

Type	Stock no.	Price/each
LWST-605	36-010-85	15,40

Remote controlled power switch, outdoor use

Mfr. Nexa

Remote controlled power switch for outdoor use. Used for wirelessly turning on/off electrical devices which are mains connected such as engine heaters, radiator heaters and lightings. Contains a one channel key ring transmitter (remote control) and 1 pcs receiver with on/off function for direct connection to mains outlet. Transmitter and receiver can be coded. The units are compatible with other Nexa products and the transmitter can be used with other receivers equipped with self-learning function. The receiver can be used with all Nexa remote controls. The remote control is supplied with CR2032 battery.



Switching capacity: 3500 W (16 A) @ 230 Vac
Frequency: 433.92 Hz
Range: approx. 30 m

Type	Stock no.	Price/each
KCT510+OAGDR-3500	36-010-93	28,70

Receiver for outdoor use IP44

Receiver with on/off function designed for outdoor use. To complement with a remote control or an existing system. Suitable for controlling engine heaters, outdoor lightings etc. Compatible with all Nexa remote controls. The receiver is not self-learning.



Switching capacity: 3500 W (16 A) @ 230 Vac
Frequency: 433.92 Hz

Type	Stock no.	Price/each
OAGDR-3500	36-011-19	19,80

Remote control

Mfr. Nexa

8 channel remote control designed for controlling all Nexa receivers. It can be used as an additional controller in an existing system or to custom-make one. Group controlling is possible (only receiver in iSYC-series). Not self-learning. Supplied with 3 V CR2032 battery type.



Frequency: 433.92 Hz

Type	Stock no.	Price/each
SYCT-407	36-011-35	14,70

Magnetic contact with transmitter



Mfr. Nexa

Alarm contact for placement on doors and windows. Used together with Nexa receiver with "self-learning" coding system. When the magnetic contact is broken, a signal is transmitted to receiver which subsequently turns on a lamp or activates a siren. Receiver is deactivated when closing occurs. Adjustable delay timer with six fixed times, from 2 to 20 minutes, which makes the receiver to be activated independent of the switch's position. Supplied with 3 V CR2032 battery type.

Frequency: 433.92 Hz
Range: approx. 25 m
Delay timer: 2/4/8/10/15/20 min

Type	Stock no.	Price/each
LMST-606	36-011-43	17,30

Motion detector with transmitter IP44

Mfr. Nexa

IR detector with built-in transmitter for use with Nexa receiver or wireless door bells. The detector sends a wireless signal to a receiver when it detects motion within the detection area. Type of receiver, power switch or door bell is chosen with a switch. When using with a wireless doorbell, time delay can be set from 15 sec to 4 min (7 choices). The detector can also be controlled by ambient light, resulting in no activation until darkness sets. Sealed design, can be used outdoors. Powered by 3 pcs. batteries of type LR6/AA (not included).



Sensor range: 10 m
Angle: 110°
Transmitter range: approx. 25 m
Frequency: 433.92 Hz

Type	Stock no.	Price/each
MDT-507	37-802-10	24,50

Wireless doorbell sound/light

Mfr. Nexa, Invito/Moda

A set containing a push-button unit with built-in transmitter plus mains connected signal sensor/receiver with both sound and blinking light indication. Easy installation, wiring not necessary. The placement of the signal sensor/receiver is flexible, only mains outlet required. The system can be complemented with additional signal sensor/receiver from the Invito series plus additional push-button unit/transmitter. Coverage range approx. 200 metre.



Frequency: 433.92 Hz
Power supply
push-button unit/transmitter: 3 V battery 2 pcs LR03/AAA (not included)
signal sensor/receiver: 230 V
Dimensions
push-button unit/transmitter: 85x30x22 mm
signal sensor/receiver: 98x63x32 mm

Type	Stock no.	Price/each
Moda 723 S-200	37-800-38	28,40

Wireless doorbell, 3 melodies

Mfr. Nexa, Invito/Como

A set containing a push-button unit with built-in transmitter plus mains connected signal sensor/receiver. Easy installation, wiring not necessary. The placement of the signal sensor/receiver is flexible, only mains outlet required. The system can be complemented with additional signal sensor/receiver and push-button unit/transmitter. Coverage range approx. 100 metre.



Frequency: 433.92 Hz
Power supply
push-button unit/transmitter: 3 V battery 2 pcs LR03/AAA (not included)
signal sensor/receiver: 230 V
Dimensions
push-button unit/transmitter: 85x30x22 mm
signal sensor/receiver: 98x63x32 mm

Type	Stock no.	Price/each
Como 723-100	37-800-46	24,50

Wireless signal sensor/receiver

Mfr. Nexa, Invito/Como

Additional signal sensor/receiver for direct connection to mains outlet. Three different melodies. By using several signal sensors/receiver in one unit, ringing sound can be heard in several places of a house, office or in completely different premises.



Type	Stock no.	Price/each
Como 723-100R	37-800-53	17,10

Wireless doorbell sound/light, battery powered

Mfr. Nexa, Invito/Ocean

A set containing a push-button unit with built-in transmitter plus signal sensor/receiver with both sound and blinking light signal indication. Both units are intended for battery operation. Easy installation, wiring not necessary. The system can be complemented with additional signal sensor/receiver and push-button unit/transmitter. Coverage range approx. 100 metre.



Frequency: 433.92 Hz
Power supply
push-button unit/transmitter: 3 V battery 2 pcs LR03/AAA (not included)
signal sensor/receiver: 4.5 V 3 pcs LR14/C (not included)
Dimensions
push-button unit/transmitter: 85x30x22 mm
signal sensor/receiver: 137x98x45 mm

Type	Stock no.	Price/each
Ocean 7055-100	37-800-61	24,50

Wireless doorbell, battery powered

Mfr. Nexa, Invito/Wind

A set containing a push-button unit with built-in transmitter plus signal sensor/receiver. Soft tone characteristics. Battery powered. Easy installation, wiring not necessary. The system can be complemented with additional signal sensor/receiver and push-button unit/transmitter. Coverage range approx. 200 metre.



"Frequency: 433.92 Hz
Power supply
push-button unit/transmitter: 3 V battery 2 pcs LR03/AAA (not included)
signal sensor/receiver: 4.5 V 3 pcs LR14/C (not included)
Dimensions
push-button unit/transmitter: 85x30x22 mm
signal sensor/receiver: 137x98x45 mm"

Type	Stock no.	Price/each
Wind 705-200	37-800-79	26,90

Wireless doorbell, battery powered

Mfr. Nexa, Invito/Divo

A set containing a push-button unit with built-in transmitter plus signal sensor/receiver. Battery powered. Easy installation, wiring not necessary. The system can be complemented with additional signal sensor/receiver and push-button unit. Coverage range approx. 100 metre.



Frequency: 433.92 Hz
Power supply
push-button unit/transmitter: 3 V battery 2 pcs LR03/AAA (not included)
signal sensor/receiver: 4.5 V 3 pcs LR14/C (not included)
Dimensions
push-button unit/transmitter: 85x30x22 mm
signal sensor/receiver: 125x90x32 mm

Type	Stock no.	Price/each
Divo 703-100	37-800-87	19,50

Signal sensor/receiver, battery powered

Mfr. Nexa, Invito/Divo

Battery powered additional signal sensor/receiver. Three different melodies. By using several signal sensors/receiver in one unit, ringing sound can be heard in several places of a house, office or in completely different premises. Compatible with all Invito wireless doorbells, both mains and battery powered. Supplied without battery.



Type	Stock no.	Price/each
Invito/Divo	37-800-95	14,60

Wireless push-button/transmitter

Mfr. Nexa, Invito

Additional push-button unit for complementing or in exchange of an existing system. Compatible with all signal sensors in Invito series. Powered by 2 pcs. 1.5 V batteries type LR03/AAA or similar. Battery not included.



Frequency: 433.92 Hz
Power supply: 3 V 2 pcs LR03/AAA (not included)
Dimensions: 85x30x22 mm

Type	Stock no.	Price/each
Invito	37-801-11	12,10

Wireless doorbell

Mfr. Nexa, ML-7100

Set containing push-button unit with built-in transmitter and mains connected signal sensor/receiver with both audio and light signal. Easy installation, wiring not necessary. The placement of the signal sensor/receiver is flexible, only mains outlet required. The system can be complemented with additional signal sensor/receiver and push-button unit/transmitter. Coverage range, approx. 25 metre.



Frequency: 433.92 Hz
Power supply
push-button/transmitter: 12 V battery GP23A (included)
signal sensor/receiver: 230 V (class II, euro-connector)
Dimensions
push-button/transmitter: 90x49x23 mm
signal sensor/receiver: 88x63x32 mm

Type	Stock no.	Price/each
ML-7100	37-801-29	19,50

Wireless push-button/transmitter

Mfr. Nexa

Additional push-button unit for complementing an existing system. Powered by 12 V battery of type GP23AU or similar. Battery included.



Frequency: 433.92 Hz
Power supply: 12 V, 1 pcs GP23AU (included)
Dimensions: 90x49x23 mm

Type	Stock no.	Price/each
ML-7100T	37-801-45	12,10

Wireless signal sensor/receiver

Mfr. Nexa

Additional signal sensor/receiver for direct connection to mains outlet. With both sound and light signal. By using several signal sensors/receivers in one unit, ringing sound can be heard in several places of a house, office or in completely different premises.



Frequency: 433.92 Hz
Power supply: 230 V (class II, euro-connector)
Dimensions: 88x63x32 mm

Type	Stock no.	Price/each
ML-7100R	37-801-37	14,60

Remote controlled power switch

Mfr. Nexa

Remote controlled power switch for turning on/off mains connected electrical devices, lamps etc. The basic set consists of one remote control and two receivers with on/off function, for direct connection to wall outlets. The receiver has 6 channels and up to 16 pcs can either be controlled individually. Possibility for group activation. A total of 256 pcs receivers can be used by a single remote control. Transmitter and receiver can be coded, and the system is self-learning which simplifies installation. The system can be extended with: more receiver with on/off function, receiver with dimmer function, receiver for outdoor use for e.g. engine heater and electronic transformer for halogen lamps. The units are compatible with other NEXA products.



Switching capacity: 1000 W @ 230 Vac
Frequency: 433.92 Hz
Range: approx. 30 m

- Self-learning – easy installation

Type	Description	Stock no.	Price/each
LYC2-1000	Remote control + 2 receivers on/off	36-010-36	30,00

Receiver for remote control

Mfr. Nexa

Receiver with on/off function. To complement with a remote control or with an existing system. With 6 channels. Self-learning coding system. Compatible with all Nexa remote controls.



Switching capacity: 1000 W @ 230 Vac
Frequency: 433.92 Hz

- Self-learning – easy installation

Type	Stock no.	Price/each
LYCR-1000	36-010-44	17,60

Receiver/dimmer for remote control

Mfr. Nexa

Receiver with stepless dimmer function and memory. Designed for incandescent light. To complement with a remote control or with an existing system. With 6 channels. Self-learning coding system. Compatible with all Nexa remote controls.



Voltage: 230 V
Max power: 300 W

- Self-learning – easy installation

Type	Stock no.	Price/each
LYCR-300	36-010-51	19,80

Controller for IR heater

Mfr. United Automation

4 kW with motion sensor

A controller with motion detector for connecting one or two infrared heater lamps. The PIR sensor registers motion and subsequently activates the timer which can be set from 1 to 30 minutes after latest registered motion. The sensor has detection angle of 100° and range of up to 7 m. The controller is equipped with soft start, which adds up to 30 % to the heater's lifespan. An internal temperature regulator prevents the heater to start when temperature is above +20 °C.



Type	Stock no.	Price/each
Infresco P 4kW	72-001-24	122,00

Controller for IR heater

Mfr. United Automation

6 kW with motion sensor

A controller with motion detector for connecting one or two infrared heater lamps. The PIR sensor registers motion and subsequently activates the timer which can be set from 1 to 30 minutes after latest registered motion. The sensor has detection angle of 100° and range of up to 7 m. The controller is equipped with soft start, which adds up to 30 % to the heater's lifespan. An internal temperature regulator prevents the heater to start when temperature is above +20 °C.



Type	Stock no.	Price/each
Infresco P 6kW	72-001-40	175,00

Controller for IR heater

Mfr. United Automation

4 kW with timer

A controller with timer for connecting one or two infrared heater lamps. The timer can be set from 1 to 30 minutes and is activated with a push-button at the front panel. The controller is equipped with soft start, which adds up to 30 % to the heater's lifespan. An internal temperature regulator prevents the heater to start when temperature is above +20 °C.



Type	Stock no.	Price/each
Infresco T 4kW	72-001-16	111,00

Controller for IR heater

Mfr. United Automation

6 kW with timer

A controller with timer for connecting up to four infrared heater lamps. The timer can be set from 1 to 30 minutes and is activated with a push-button at the front panel. The controller is equipped with soft start, which adds up to 30 % to the heater's lifespan. An internal temperature regulator prevents the heater to start when temperature is above +20 °C.



Type	Stock no.	Price/each
Infresco T 6kW	72-001-32	159,00

HDMI cable

tasker in Technology

Mfr. Tasker, TSK 1061

Flexible double screened HDMI cable with small outer diameter. For the production of shorter HDMI cable assembly, max. 10 metres.



Colour	Black
Rated voltage	30 V
Impedance	100 Ω
Shield	Tinned copper braid, over aluminium foil
Outer insulation	PVC, self-extinguishing
Outer diameter	7.2 mm
Temperature range	-15...+80 °C

Description	Stock no.	Price/m
HDMI-cable Ø7.3mm	55-862-68	6,13

HDMI cable

tasker in Technology

Mfr. Tasker, TSK 1060

Double screened HDMI cable. For the production of HDMI cable assembly, max. 30 metres.



Colour	Black
Rated voltage	30 V
Impedance	100 Ω
Shield	Tinned copper braid, over aluminium foil
Outer insulation	PVC, self-extinguishing
Outer diameter	10 mm
Temperature range	-15...+80 °C

Description	Stock no.	Price/m
HDMI-cable Ø10mm	55-862-76	9,66

HDMI cable connector, gold-plated

HDMI cable connector, type A, with gold-plated contacts. Zinc alloy casing. For max. cable diameter 7.3mm.



Description	Stock no.	Price/each
HDMI-contact type-A Ø7.3mm	42-294-23	9,55

HDMI cable connector

tasker in Technology

Mfr. Tasker

HDMI cable connector, type A. Black plastic casing. For max. cable diameter 7.3mm.



Description	Stock no.	Price/each
HDMI-contact type-A Ø7.3mm	42-294-07	5,87

HDMI cable connector, gold-plated

tasker in Technology

Mfr. Tasker

HDMI cable connector, type A, with gold-plated contacts. Silver plastic casing. For max. cable diameter 10mm.



Description	Stock no.	Price/each
HDMI-contact type-A Ø10mm	42-294-15	8,94

HDMI hybrid cable assembly



Mfr. Kramer Electronics

HDMI hybrid cable assembly comprised of both copper wire and fibre. Fibre optic transmitter and receiver are built-in the cable, therefore signals can be transmitted over long distances with retained signal quality, up to 100 m. With HDMI connectors at each end. Compatible with HDTV-standard up to 1080p, HDMI 1.3, DVI 1.0 (DDC2B) and WUXGA (1920x1200).



Description	Stock no.	Price/each
ca. 15 m (50 feet)	42-627-13	410,00
ca. 20 m (66 feet)	42-627-21	471,00
ca. 30 m (98 feet)	42-627-39	606,00
ca. 50 m (164 feet)	42-627-47	824,00
ca. 100 m (328 feet)	42-627-54	1736,00

Electrochemical battery

Chemical systems

Battery cells come in two basic types, primary (disposable) and secondary (rechargeable). The term primary cell is derived from the fact that the cell type is the primary source for electricity and it is not constructed for recharging. Upon a chemical reaction, primary cells convert the energy into electrical energy and perpetuate this process until it is used up. In secondary cells, energy is converted in the same manner upon a chemical reaction, and the process is reversed when recharging occurs. By using different types of anode and cathode materials and electrolytes the different characteristics are maintained in the battery cells. The various battery types can be categorized in the following electrochemical system.

Electrochemical system

– Primary batteries

Household batteries

- Alkaline
- Manganese dioxide

Button cell / button cell batteries

- Lithium
- Air-alkaline
- Silver oxide
- Alkaline

Lithium batteries

Electrochemical system

– Secondary batteries

Nickel-metal hydride battery (NiMH)

Lithium-ion batteries (Li-Ion)

- Lithium cobalt oxide (LiCoO₂)
- Lithium-ion polymer (CoO₂)
- Lithium iron phosphate (LiFePO₄)
- Lithium Mangan Dioxide (LiMn₂O₄)

Lead (Pb)

Nickel-cadmium battery (NiCd)

Secondary batteries – rechargeable

Nickel-metal hydride battery (NiMH)

NiMH batteries have higher capacity than their predecessors NiCd and are the environmentally friendly alternatives. NiMH batteries are available in various cell types with different characteristics: high temperature, high current and high capacity cells. NiMH batteries have self-discharge of 1-2 % per day. They can be quickly charged in less than hour, but for maximum life-time, slow charging is the best choice. They are used in almost all types of consumer products, such as MP3 players, digital cameras, shavers etc.

Lithium (Li-Ion)

The term Lithium Ion describes a group of battery systems, where the cells' stored energy is attained by the movement of the lithium ion between the electrodes in the battery. By using different arrangements in the anode and cathode material plus electrolyte, the battery cells receive different characteristics.

Lithium cobalt oxide (LiCoO₂)

These are batteries with longer operating time, higher energy density and lower weight than NiMH batteries. The energy density is approx. 25 % higher than NiMH batteries, which means that they do not need to be charged as often. The voltage is also 3 times as high, 3.7 V compared to 1.2 V and the batteries have extremely low self-discharge. They are primarily used in notebook computers, mobile telephones, video and digital cameras, communication equipments, electronic instruments etc.

Lithium-ion polymer (CoO₂)

Ultra thin batteries, from 0.7 mm, with flexible shape and good cyclical characteristics. Lithium polymer has 1.5 – 2 times higher capacity than Lithium ion. They are primarily used in applications that require the highest possible capacity in the smallest possible size in combination with low weight, for example in headset, MP3 but are also

Primary batteries – disposable

Household batteries, Alkaline and Manganese dioxide

Household batteries are the most common types and they are available in two chemicals: Alkaline and Manganese dioxide, where alkaline is the most common. They are used in toys, MP3 players, flashlights, cameras, and torches.

Button cell / button cell batteries, alkaline, silver oxide, lithium, and air-alkaline

In this segment, several different types of chemicals are included, where the majority has the shape of a button in various sizes. They are primarily used in "miniature electronics" such as calculators, car alarm, wrist watches, memory backups, hearing aids etc.

Air-alkaline batteries

Cegasa's air-alkaline batteries were already introduced in the market in 1985. A distinguishing factor for these batteries is very high and even voltage output, 1.35 V/cell, which is retained for more than 90 % of the batteries' operating time. Energy density is also among the highest for primary batteries, 377 Wh/kg or 676 Wh/l which are very high numbers that are reached approx. at 20°. Common voltage combinations are 1.5, 3, 6 and 12 V. The batteries require oxygen to be activated, and this achieved by removing a tape from a valve, which is then opened. Inactivated batteries have self-discharge of approx. 5 % in one year period and 8 % in two years. Some of the most common application areas are power supply for fences, street and railway signals, navigations, telecommunication, plus parking meters and ticket machines.



Air-alkaline batteries 25–150 Ah

Mfr. Cegasa

Air-alkaline batteries for signal systems and other demanding equipments in areas such as, maritime, railways and streets. Especially, designed for applications where constant monitoring is impossible and where difficult climate condition prevails. Very even discharge curve throughout the battery's lifespan. Long storage time.

Description	Stock no.	Price/each
3V/350Ah 2AS8	69-256-63	93,40
6V/25Ah 4AS2/25	69-256-30	17,80
6V/45Ah 4AS2/45	69-256-48	27,10
9V/150Ah 6AS3/150	69-256-55	70,20

EVOIA best in testing !

Mfr. Panasonic

After rigorously testing alkaline batteries (size LR/AA), GUINNESS WORLD RECORDS has pronounced a winner, EVOIA from Panasonic. Try it yourself! Supplied in 4-packs.



Description	Stock no.	Price/pack
LR03/AAA EVOIA 4-pack	69-222-23	6,71
LR6/AA EVOIA 4-pack	69-222-31	6,50
LR14/C EVOIA 4-pack	69-222-49	3,13
LR20/D EVOIA 4-pack	69-222-56	4,84

systems

GP Batteries
Powering a better tomorrow

being used for e.g. in mobile phones more and more.

Lithium iron phosphate (LiFePO₄)

A new and innovative battery technology for high capacity demands. Compared with other lithium batteries, they are stable and robust with high safety levels and are also suited for high temperatures. With capacity for more than 1000 charging cycles. Used in applications that require batteries that handle high temperatures, require long operating time, and high safety criterions, such as tools, emergency illuminations, solar cells, medical equipments etc.

Lithium Mangan Dioxide (LiMn₂O₄)

High current batteries with high nominal voltage (3.8 V) specially developed for high current applications like hand-held tools, gardening equipments, eBikes, medical equipments etc.

Lithium batteries

Lithium batteries have higher voltage (3.0 or 3.6 V) than alkaline and manganese dioxide. Their primary usage areas are applications that require high pulse capability, such as navigational equipment, back ups etc. (small space, high capacity).

NiMH charger with AA batteries

Mfr. GP Batteries, ReCyco+

NiMH charger complete with 4 pcs of NiMH batteries, size AA/LR6 2000 mAh, of ReCyco type. These batteries are delivered pre-charged and have very low self-discharge, therefore they can be stored for a longer period without being utilized (75 % capacity after 12 months). Moreover, the batteries have good characteristics at low temperature. The charger is equipped with 2 charging channels for charging 2 or 4 cells in pairs, sizes AAA/LR03 or AA/LR6. Charging time is 12 respectively 14 hours. ReCyco type batteries can be purchased separately.



For technical information, prices and for the entire battery assortment, please refer to www.elfa.se or visit one of our shops.



Description	Stock no.	Price/each
NiMH-charger + 4x AA/LR6-batt. ReCyco	69-901-70	28,50
NiMH-charger + 2x AAA/LR03-batt. ReCyco	69-901-62	19,10
NiMH-batteries LR6/AA 2000 mAh	69-111-84	10,40
NiMH-batteries LR03/AAA 800 mAh	69-111-92	7,96

Panasonic
ideas for life



“THE
WORLD'S No.1
LONG LASTING
AA Alkaline battery”

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*Image of all discharge tests: AA, AAA and D sizes, Jan. 2008 - 2009.

*Based on test using an AA-size alkaline battery and an average of discharge time measured against AA, AAA and D sizes (as of 15 January 2008). *Mitsubishi International based on global market share (excluding Europe). *GUINNESS WORLD RECORDS™ recognized the achievement based on the data obtained from discharge tests conducted in accordance with international standards IEC 6193 and JIS 3322. *Has the same technology as EVOIA 3R sold in Japan.

After exhaustive tests of the world's leading brands¹ of AA alkaline batteries, GUINNESS WORLD RECORDS™ have established which battery outperforms its competitors on all the common industry tests².

It's the new Evoia battery from Panasonic³. So if performance matters and you're looking for a battery that won't let you down, choose the new Evoia from Panasonic.

EVERYTHING MATTERS



www.panasonic-batteries.com

Compression Coax Board-to-Board RF Connector



DESCRIPTION

Board-to-Board RF Connector Series

- Single connector product
- Surface mount technology
- Excellent price-to-performance ratio

APPLICATIONS

- Modular parallel board-to-board blind mate applications
- Base Station / Sub Station systems
- PDA / PCS / Cellular Handset applications
- Wireless Communications systems (GSM, PCS, WCDMA, UMTS)

KEY FEATURES

- Single connector design - no mating connectors needed
- Available in four sizes for varied board spacing: 14mm, 10mm, 6.65mm and 4mm
- Large radial and axial misalignment: For positioning both boards and for gap between boards
- Surface Mount Device for standard pick & place compatibility
- Gold plated phosphor bronze and brass contacts, stainless steel springs
- Mating directly on target board
- Easy connection without risk of breaking soldering or connector when mating or unmating
- Low applied material and assembly costs

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GP Batteries

Heat gun SS 612B

Mfr. Pro'sKit

Heat gun with 2 power positions, 380 °C and 500 °C. Double insulated with chock resistant element with maximum power of 1300 W. Nozzle diameter 28 mm.

Supplied in a moulded plastic case with 4 pcs different nozzles and a scraping tool for paint removal.



Type	Stock no.	Price/each
SS-612B	80-889-08	29,50

Combination key

Mfr. Knipex

Combination key for electricians, caretakers, heating, ventilation and sanitation technicians. Designed with chain and two-way bit with adaptor.

001103S1 is equipped with 11 mm triangular key, otherwise the same.



Type	Stock no.	Price/each
001103	80-672-76	20,40
001103S1	80-672-72	20,90

Combination spanners set Honidriver

Mfr. Honiton

Set with 8 pcs combination spanners with 12 point inner ring grip with "Honidrive" profile, which means that the socket handles most screws and nut, even those with 30% round-off. Refer to picture. Made from chrome-vanadium steel. Both ends have the same dimensions.



Type	Stock no.	Price/each
1508HCWE	80-930-15	28,30

Socket set Honidriver

Mfr. Honiton

12 point grip deep socket with "Honidrive" profile, which means that the socket handles most screws and nuts, even those with 30% round-off. Refer to picture. Made from chrome-vanadium steel. The socket is available in sets of 1/4", 3/8" or 1/2"-socket for square fitting. The sets are delivered in plastic holders with hanging hole.



Type	Description	Stock no.	Price/each
11211KHM-HFK	Socket set 11 pcs 1/4"	80-578-33	7,94
13010KHM	Socket set 10 pcs 3/8"	80-578-35	9,75
40010KHM	Socket set 10 pcs 1/2"	80-578-37	14,00

Bolt cutter

Mfr. Knipex

Compact bolt cutter made of oil-hardened chrome-vanadium steel with induction hardened cutting edges and cutting edge hardness of approx. 62 HRC. High cutting performance with minimum effort due to optimum blade geometry. Cuts rivets, bolts, tie rods up to Ø 8 mm. Blades and joints forged from steel with powder coated steel tubing bi-component handles.



Type	Stock no.	Price/each
71 72 460	80-534-23	90,20

Power pliers set, Nordic-Set

Mfr. Knipex

Set of power pliers made of oil-hardened chrome-vanadium steel and soft bi-component handles.

71 02 200 Compact bolt cutter, Cobalt type, with high cutting performance due to principle of moments. Cuts material such as bolts, nails, rivets up to Ø 5.2 mm.

74 12 160 Power side cutter with opening spring which can easily be activated with push of the thumb. Cutting capacity piano wire 2.0 mm.

87 02 250 Water pump pliers, Cobra type, self-locking with 25 grip width adjustment positions with a simple push-button. Increased grip width to 46 mm.



Type	Stock no.	Price/each
00 20 575	80-408-91	85,90



1455 extruded aluminium

- integral PCB slots
- metal or plastic end panels
- strong and robust



1551 miniature general purpose

- rectangular and square
- sealed to IP54
- flanged and plain lids



1553 soft sided

- with or without battery box
- removable front panel
- membrane keyboard recess

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HAMMOND MANUFACTURING™

Erem series

Swiss quality pliers for the electronics industry. The cutting edges are made of tungsten carbide for long life. Precision screws minimise the friction and maximise the precision of the edges. Built-in pull back springs that are able to manage a minimum of 1 million movements, with functionality still intact. The handles, which provide an excellent grip, are made of ESD-safe foamed plastic. Three different blade options for the cutting pliers.

Side cutter 622 N

Mfr. EremCutting capability 1.3 mm copper wire. Length 110 mm



Description	Stock no.	Price/each
622N Side cutter Erem	80-514-19	50,20

Side cutter 522N

Mfr. EremCutting capability 1.6 mm copper wire. Length 115 mm.



Description	Stock no.	Price/each
522N Side cutter Erem	80-509-65	50,20

Side cutter 2412E

Mfr. EremCutting capability 1.6 mm copper wire. Length 130 mm.



Description	Stock no.	Price/each
2412E Side cutter Erem	80-512-29	62,00

Side cutter 2422E

Mfr. EremCutting capability 1.6 mm copper wire. Length 130 mm.



Description	Stock no.	Price/each
2422E Side cutter Erem	80-512-37	62,00

Erem

600-series are the smallest pliers with 9mm wide pliers head.
 500-series are the medium size with 11 mm wide pliers head.
 2400-series are the medium size with 11 mm wide pliers head. Ergonomically shaped longer handles.
 800-series are the most powerful with 14 mm wide pliers head.

Side cutter 2432E

Mfr. EremCutting capability 1.6 mm copper wire. Length 130 mm.



Description	Stock no.	Price/each
2432E Side cutter Erem	80-512-45	62,00

Tip cutter 30° 2403E

Mfr. EremCutting capability 1.6 mm copper wire. Length 130 mm.



Description	Stock no.	Price/each
2403E Tip cutter Erem	80-512-52	80,10

Tip cutter 45° 2482E

Mfr. EremCutting capability 1.2 mm copper wire. Length 135 mm.



Description	Stock no.	Price/each
2482E Tip cutter Erem	80-512-60	70,30

Needle nose pliers 2411P/2411PD

Mfr. EremTip dimensions 1.2 mm. Length 146 mm. Model 2411PD has inside-serrated jaws.



Description	Stock no.	Price/each
2411P Needle nose pliers Erem	80-512-78	62,00
2411PD Needle nose pliers Erem	80-512-86	68,90

Flat nose pliers 2442P

Mfr. EremWith smooth jaws. Tip dimensions 3.4x1.2 mm. Length 146 mm.



Type	Description	Stock no.	Price/each
2442P	2442P Flat nose pliers Erem	80-512-94	62,00

Round nose pliers 2443P

Mfr. EremWith round, smooth jaws. Tip diameter 0.8 mm. length 146 mm.



Type	Description	Stock no.	Price/each
2443P	2443P Round nose pliers Erem	80-512-97	64,80

Forming pliers 554A

Mfr. EremForming pliers for component legs/pins, U-shape type. Max bending diameter: 0.7 mm



Description	Stock no.	Price/each
554A Forming pliers Erem	80-509-57	72,40

Headphones SENNHEISER HD62TV

Mfr. Sennheiser

Closed stereo headphones primarily intended for TV connection. Excellent and clear reproduction of especially, speech but also music. Equipped with volume control, separate for each channel and extra long cable.



Impedance: 32 Ω
Frequency range: 25–20 000 Hz
Sensitivity: 115 dB @ 1 V, 1 kHz
Cable length: 0.8 m+5.2 m
Weight: 140 g

Description	Stock no.	Price/each
Headphones HD62TV	30-195-69	49,80

Headphones, active dampening PXC450

Mfr. Sennheiser

Closed, foldable headphones which combines passive and active dampening of background noise. Ideal for use with portable sound sources in airplanes, cars and other environments with high background noises. The passive system provides very high dampening of high frequencies while the active electronic system dampens frequencies under 1000 Hz. A special "TalkThrough" - function allows for undisturbed communication with your environment. The active system, which is powered with 1 pcs LR03/AAA battery is detachable. The headphone works even without battery. Supplied with a soft carrying case, battery and adaptors from 3,5 mm to 1/4" tele plug and from 3,5 mm stereo to 3,5 mm double mono plugs (for airplane).



Impedance: 150/750 Ω
Frequency range: 8–28 000 Hz
Sensitivity: 108 dB @ 1 V, 1 kHz
Cable length: 1.4 m
Weight: 240 g

Description	Stock no.	Price/each
Headphones, active dampening PXC450	30-195-77	344,00

Headphone SENNHEISER MX160

Mfr. Sennheiser

Small, light and comfortable headphones for connecting to MP3-/CD-/DVD players etc. Equipped with 3,5 mm angled stereo plug.



Impedance: 32 Ω
Frequency range: 22–20 000 Hz
Sensitivity: 109 dB @ 1 V, 1 kHz
Cable length: 1.0 m
Weight: 4 g

Description	Stock no.	Price/each
Headphones MX160	30-195-85	8,59

Headphones SENNHEISER MX560

Mfr. Sennheiser

Small, light and comfortable headphones for connecting to MP3-/CD-/DVD players etc. Winding case simplifies cable length adjustment. Equipped with 3,5 mm angled stereo plug.



Impedance: 32 Ω
Frequency range: 19–20 000 Hz
Sensitivity: 112 dB @ 1 V, 1 kHz
Cable length: 1.1 m
Weight: 4 g

Description	Stock no.	Price/each
Headphones MX560	30-195-93	18,90

Twist drill set HSS-Co5, DIN 338

Twist drill suited for deep-hole drilling of steel, even unalloyed cast iron (up to strengths of 900 N/mm²). Cobalt alloyed high-speed steel ensures increased heat resistance. Parabolic flute drills give improved chip removal. Point angle 130°. Supplied in a metal case with 19 pcs drills 1–10 mm in steps of 0,5 mm.



Description	Stock no.	Price/each
Twist drill set HSS-Co5, DIN 338	80-661-44	40,10

Cable measuring device

Cable length measuring device with ergonomically designed handle. Equipped with knurled, spring measuring wheel that handle cable dimensions of up to 32 mm in diameter. Mechanical counter 0.1–10 000 m, with reset lever. Equipped with square fitting (20 mm).



Description	Stock no.	Price/each
Cable measuring device type 142745	80-801-52	195,00

Side cutter

Mfr. Good Tools

Side cutter made of carbon steel, with 21° angled cutting edges. Bi-component handles with built-in return spring.



Cutting capability 1,3 mm copper wire.

Description	Stock no.	Price/each
Side cutter MP-250E	80-427-56	5,60

Side cutter

Mfr. Good Tools

Side cutter made of carbon steel, with 21° angled cutting edges. Bi-component handles with built-in return spring.



Cutting capability 1,6 mm copper wire.

Description	Stock no.	Price/each
Side cutter MP-258E	80-427-64	6,16

Flat nose pliers

Mfr. Good Tools

Flat nose pliers made of carbon steel, with smooth jaws. Bi-component handles with built-in return spring.



Description	Stock no.	Price/each
Flat nose pliers MP-252E	80-427-80	5,60

Snipe nose pliers, angled

Mfr. Good Tools

45° angled snipe nose pliers made of carbon steel, with inside-serrated jaws. Bi-component handles with built-in return spring.



Description	Stock no.	Price/each
Snipe needle nose pliers MP-253AE	80-427-98	6,36

Electronic pliers set MP-811

Mfr. Good Tools

Electronic pliers made of carbon steel. Bi-component handles with built-in return spring.
MP-250 Side cutter 1,3 mm copper wire. 140 mm
MP-251 Snipe nose pliers 2 mm tip dimension. 155 mm
MP-252 Flat nose pliers 3 mm tip dimension. 155 mm
MP-253 Angled snipe nose pliers 1,5 mm tip dimension. 150 mm
MP-254 Round nose pliers 2,0 mm tip dimension. 155 mm



Description	Stock no.	Price/each
Electronic pliers set MP-811	80-428-63	19,20

Mounting tool for cable grommets

Mfr. KSS

Mounting tool for grommet with strain relief. Made from stainless steel with dipped insulated handles. Length 185 mm.



Description	Stock no.	Price/each
Mounting tool for cable grommets type KT	80-500-51	48,60



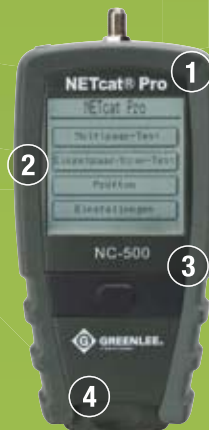
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- 2 Touch screen operation.
- 3 TDR cable length.
- 4 Noise immune tracing.

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Push button switch in metal, IP68 vandal resistant

Mfr. Bulgin

Push button switch, 1-pole change-over, momentary action in stainless steel. With excellent electrical and mechanical characteristics. Low front profile makes it hard to vandalize, even with a tool. High protection class, IP68 (only front).

Contact function: on-(on)
Breaking capacity: 5 A @ 50 V ac
Terminations: solder eyelet
Dimensions: Ø32,0x32,1 mm
Panel hole: Ø27,7 mm



Description	Stock no.	Price/each		
		1-	10-	20-
Switch 1-pole Chg-over mom. MP0050	35-071-34	18,80	17,80	16,40

Keyboard switch with illumination 10x10 mm

OMRON

Mfr. Omron

Keyboard switch with built-in LED illumination. White lens with diffuser provides an evenly lit push surface. With 1 or 2 LEDs. NOTE! The LED has current limitations, recommended current is 20 mA, 10 mA for blue colour.



Number of poles: 1
Contact function: off-(on)
Breaking capacity dc: 1-50 mA @ 5-24 V
Force: 1.57 N
Temperature range: -25...+70 °C
Dimensions: 10x10x11 mm

Description	Stock no.	Price/each		
		1-	10-	50-
Switch 1 LED red B3W-9000-R1N	35-702-07	2,76	2,64	2,39
Switch 1 LED green B3W-9000-G1N	35-702-15	2,76	2,64	2,39
Switch 1 LED yellow B3W-9000-Y1N	35-702-23	2,76	2,64	2,39
Switch 1 LED blue B3W-9000-B1N	35-702-31	4,06	3,89	3,56
Switch 2 LED red B3W-9000-R2N	35-702-49	3,78	3,62	3,28
Switch 2 LED green B3W-9000-G2N	35-702-56	3,78	3,62	3,28
Switch 2 LED yellow B3W-9000-Y2N	35-702-64	3,78	3,62	3,28
Switch 2 LED blue B3W-9000-B2N	35-702-72	6,42	6,16	5,62
Switch 2 LED red/green B3W-9000-RG2N	35-702-80	3,78	3,62	3,28

Illuminated switch in metal, 2- pole

BULGIN

Mfr. Bulgin

Two pole switch with ring LED illumination. The illumination can be separately powered by 12 V DC, no serial resistor needed. Stainless steel casing makes the switch mechanically durable. With momentary or change-over function. (.) = momentary (spring-back)



Number of poles: 2
Breaking capacity ac: 3 A @ 50 V
Illumination: LED, 12 V dc
Terminations: Solder eyelet
Temperature range: -30...+55 °C
Dimensions: Ø18x36,5 mm
Panel hole: Ø16,2 mm

Type	Description	Stock no.	Price/each		
			1-	10-	30-
MP0045/1D2RD012	Red illum. momen. chOver	35-072-82	11,20	10,60	9,93
MP0045/1D2AM012	Yellow illum. momen. chOver	35-072-74	11,20	10,60	9,93
MP0045/1D2GN012	Green illum. momen. chOver	35-072-90	11,20	10,60	9,93
MP0045/1D2BL012	Blue illum. momen. chOver	35-073-08	11,20	10,60	9,93
MP0045/1E2RD012	Red illum. chOver	35-073-24	11,80	11,10	10,50
MP0045/1E2AM012	Yellow illum. chOver	35-073-16	11,80	11,10	10,50
MP0045/1E2GN012	Green illum. chOver	35-073-32	11,80	11,10	10,50
MP0045/1E2BL012	Blue illum. chOver	35-073-40	11,80	11,10	10,50

Scalpel

Mfr. Pro'sKit



Description	Stock no.	Price/each
Scalpel 8PK-394A	80-228-32	3,10
Spare blades 10 pcs type 508-394A-B	80-228-33	2,51

Scalpel with chuck locking for blade. Made from aluminium. Protective plastic cover. Dimensions: Ø7x145 mm.

LED lamp 230 V GU10/E27

Hide@lite

Mfr. Hide a Lite

LED lamp intended for 230 V. Built upon a 3 W LED. Built-in constant current converter. Fits in armatures with GU5.3, respectively E27 socket. Not dimmable. Warm white, 3000K or cold white, 6000K.



Rated voltage: 230 V ac
Power consumption: 3.9 W
View angle: 36 °
Luminous flux: 55-90 lm
Socket: GU10
Dim: Ø49x55 mm

Type	Description	Stock no.	Price/each
8384734	LED lamp 230V/3.9W cold white GU10	33-901-01	32,80
8384735	LED lamp 230V/3.9W warm white GU10	33-901-19	32,80
8384870	LED lamp 230V/3.9W cold white E27	33-901-43	36,30
8384871	LED lamp 230V/3.9W warm white E27	33-901-50	36,30

LED lamp 12 V MR16/GU5.3

Hide@lite

Mfr. Hide a Lite

LED lamp built upon a 3 W LED. Built-in constant current converter. Fits in armature with GU5.3 socket. Powered with 11-18 V AC or DC. Not intended for use with an electronic ac transformer. Not dimmable. Warm white, 3000K or cold white, 6000K.



Rated voltage: 11-18 V ac/dc
Power consumption: 3.9 W
View angle: 36 °
Luminous flux: 55-90 lm
Socket: GU5.3
Dim: Ø49x46 mm

Type	Description	Stock no.	Price/each
8384744	LED 12V/3.9W MR16/GU5.3 cold white	33-901-27	32,80
8384745	LED 12V/3.9W MR16/GU5.3 warm white	33-901-35	32,80

LED 12 V MR11/GU4

Hide@lite

Mfr. Hide a Lite

LED lamp with built-in constant current converter. Fits in armature with GU4 socket. Powered with 12 V AC or DC. Not intended for use with an electronic ac transformer. Not dimmable. Warm white, 3000K or cold white, 6000K.



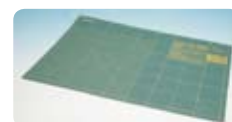
Rated voltage: 11-14.7 V ac/dc
Power consumption: 1.6 W
View angle: 36 °
Luminous flux: 40-50 lm
Socket: GU4
Dim: Ø35x36 mm

Type	Description	Stock no.	Price/each
8384874	LED lamp 12V/1.6W MR11/GU4 warm white	33-901-68	36,30
8384875	LED lamp 12V/1.6W MR11/GU4 cold white	33-901-76	36,30

Cutting mat

Mfr. Olfa

Cutting mat in two sizes with green base colour and printed grid lines. Self-healing (retakes its original shape after every cut). Suitable rotary cutter with Ø45 mm rolling blade is available. Activated from safety mode by pressing the handle.



Description	Stock no.	Price/each
Cutting mat 470x300x1.6 mm type RM-1C-C	80-514-43	12,80
Cutting mat 450x300x3.0 mm type NCM-S	80-514-50	27,50
Rotary knife type RTY-2/DX	80-511-12	24,50
Spare blades (2 pcs/pack) type RB45-1	80-511-20	5,27

Disposal box for snap-off blades

Mfr. Olfa

Disposal box for used snap-off blades



Description	Stock no.	Price/each
Disposal box for snap-off blades type DC	80-513-44	8,88